

ABSTRACT

~~The present invention provides a~~ A honeycomb structure ~~which includes~~ has a cell structure section 3 ~~including a plurality of cells 2 partitioned by a plurality of partition walls 1a and 1b, and an outer circumferential wall section 4.4 surrounding the cell structure section 3.~~ The cell structure section 3 includes a first partition wall group having the partition walls 1a positioned in parallel and a second partition wall group having the partition walls 1b which intersect the partition walls of the first partition wall group at right angles and are positioned in parallel. ~~parallel, each of the partition walls 1a and 1b connecting two different locations of the outer circumferential wall section 4 through one continuous plane.~~ In this honeycomb structure, the partition wall intervals of the partition walls 1a and 1b of each partition wall group positioned in parallel are varied stepwise in at least a part of the cell structure section 3, ~~at least some of the cells have a rectangular cross-sectional shape, and all the partition walls 1a and 1b have such a ratio of the cell side length to the partition wall thickness that the partition wall can withstand pressure during canning.~~ ~~According to the present invention,~~ a ~~The honeycomb structure which excels in~~ has increased isostatic strength and thermal shock resistance and ~~has such a high industrial applicability that the honeycomb structure can be manufactured at low cost.~~ cost can be provided.